

Having thus described the invention, it is so claimed:

1. A spring washer for producing a load in an axial direction, said spring washer comprising an outer spring body extending about a central washer axis parallel to said axial direction, a central opening being coaxial to said central washer axis, a plurality of circumferentially spaced spring fingers each extending inwardly generally toward said central washer opening, said
5 each finger having a finger base attached to said outer body and a finger end adjacent to said central opening, said finger end of every other one of said plurality of spring finger being axially spaced on either side of said outer spring body.
2. The spring washer of claim 1, wherein said spring body is annular.
3. The spring washer of claim 1, wherein said plurality of circumferentially spaced spring fingers is at least 6 spring fingers.
4. The spring washer of claim 1, wherein said plurality of circumferentially spaced spring fingers is at least 10 spring fingers.
5. The spring washer of claim 1, wherein said plurality of circumferentially spaced spring fingers is 12 spring fingers.
6. The spring washer of claim 1, wherein said finger ends of said plurality of circumferentially spaced spring fingers together form an innermost edge of said washer.
7. The spring washer of claim 6, wherein said innermost edges is generally circular and coaxial to said washer axis.
8. The spring washer of claim 6, wherein said each finger has two sides extending between said finger base and said finger end, said two sides of said each finger extending inwardly and toward one another.

9. The spring washer of claim 8, wherein said two sides of said each finger extend inwardly and toward one another at equal angles.

10. The spring washer of claim 9, wherein said outer spring body defines a washer plane perpendicular to said central washer axis and said each finger has a flat portion adjacent to said finger end which is generally parallel to said washer plane,

11. The spring washer of claim 10, wherein said flat portions of said plurality of spring fingers are equally spaced from said washer plane.

12. The spring washer of claim 1, wherein said each finger has two sides extending between said finger base and said finger end, said two sides of said each finger extending inwardly and toward one another.

13. The spring washer of claim 12, wherein said outer spring body defines a washer plane perpendicular to said central washer axis and said each finger has a flat portion adjacent to said finger end which is generally parallel to said washer plane.

14. The spring washer of claim 13, wherein said flat portions of said plurality of spring fingers are equally spaced from said washer plane.

15. The spring washer of claim 1, wherein said outer spring body defines a washer plane perpendicular to said central washer axis and said each finger has a flat portion adjacent to said finger end which is generally parallel to said washer plane.

16. The spring washer of claim 15, wherein said flat portions of said plurality of spring fingers are equally spaced from said washer plane.

17. The spring washer of claim 1, wherein said central opening is shaped to receive at least a portion of an elongated object extending in said axial direction.

18. A spring washer comprising a continuous outer spring body extending about a central washer opening, said spring body defining a spring body plane, a plurality of circumferentially spaced spring fingers extending inwardly from said body toward said central washer opening and away from said spring body plane, every other one of said plurality of spring finger also extending
5 away form an opposite side of said spring body plane.

19. A spring washer comprising a annular spring body extending about a central washer opening, said spring body having an inner edge facing said washer opening, an outer peripheral edge, sides extending between said inner and outer edges, a plurality of circumferentially spaced spring fingers extending inwardly from said inner edge of said body toward said central washer opening,
5 a first set of said plurality of spring finger extending away form one side of said spring body plane and a second set of said plurality of spring finger extending away form the other side of said spring body plane.

20. A spring washer comprising a spring body having an inner edge, an outer peripheral edge, a top and a bottom, said body extending about a washer axis and defining a washer plane perpendicular to said washer axis, a first set of spring fingers extending inwardly and upwardly from said inner edge and a second set of spring fingers extending inwardly and downwardly from said
5 inner edge.

21. The spring washer of claim 20, wherein each one of said second set of spring fingers is circumferentially spaced on either side of one of said first set of spring fingers.

22. The spring washer of claim 20, wherein said first set of spring fingers and said second set of spring fingers includes an equal number of fingers.

23. The spring washer of claim 20, wherein each of said first set of spring fingers has a inner finger edge and each of said second set of spring fingers has an inner finger edge, said inner

finger edges of said first and second set of fingers together forming an innermost edge of said washer.